

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853873

Luminaire Tested: SQ2-FB-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853873
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-100U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

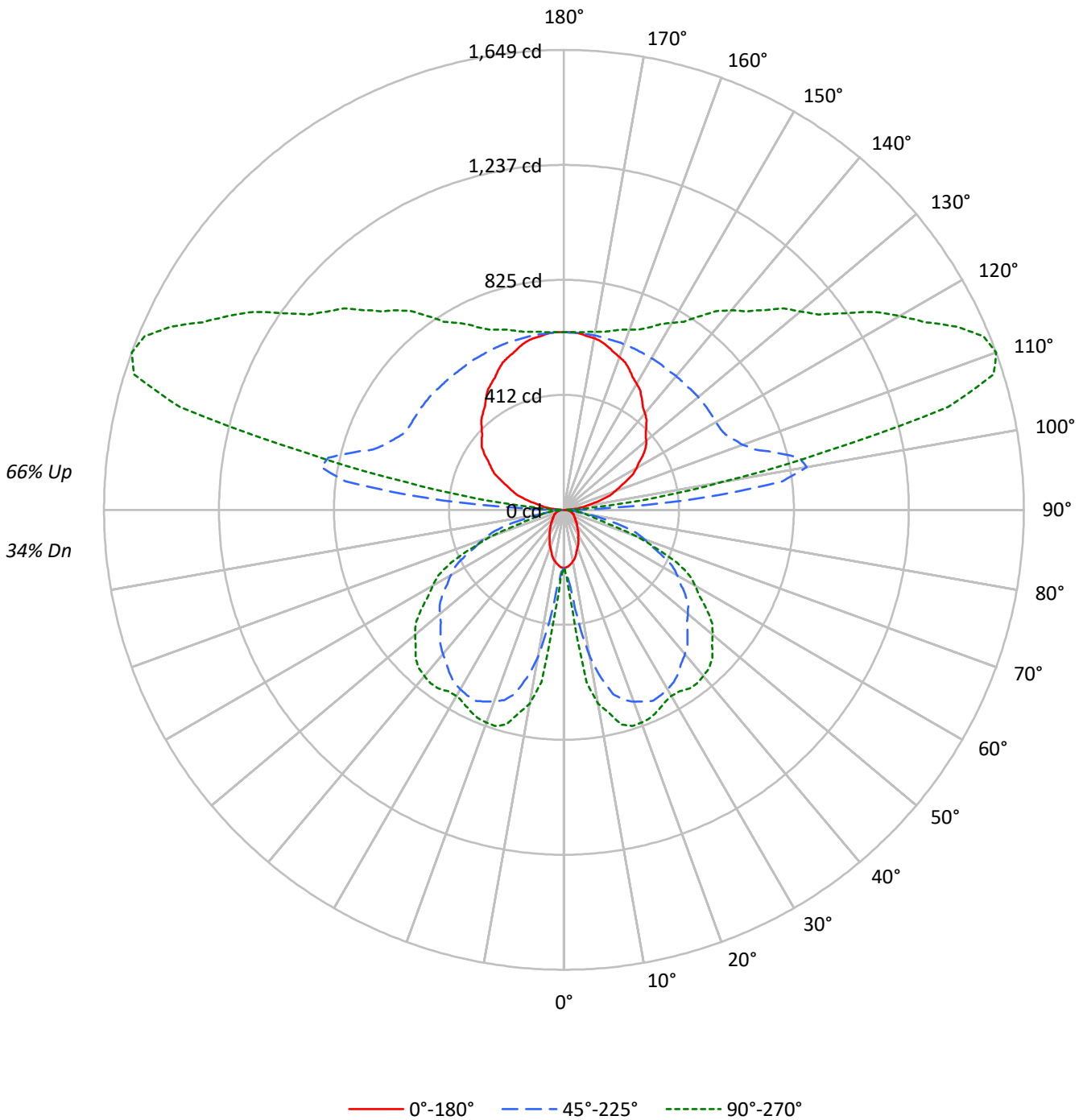
Lumens per Lamp: N/A
Luminaire Lumens: 6019.9 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	67	77	71	65	61	57	53	50	44	41	39	32	30	29	23
3	78	68	61	55	70	62	56	51	50	45	41	38	35	33	28	26	24	19
4	71	60	52	46	64	54	48	42	44	39	35	34	30	28	25	22	21	16
5	65	53	45	39	58	48	41	36	39	34	30	30	26	24	22	20	18	14
6	59	47	39	34	53	43	36	31	35	29	26	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	16	16	14	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3358	3358	3358
5°	3274	4538	5948
10°	3066	8788	11575
15°	2775	11433	13322
20°	2457	12577	13952
25°	2173	13450	14181
30°	1920	13852	14356
35°	1715	14093	15433
40°	1560	14227	16398
45°	1439	14294	17171
50°	1356	14569	17482
55°	1323	14947	17622
60°	1356	15145	17534
65°	1414	14938	17039
70°	1463	14445	12888
75°	1622	12976	7112
80°	1674	6695	6602
85°	1667	4631	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	0.6
10°-20°	159.1	2.6
20°-30°	279.9	4.6
30°-40°	362.3	6.0
40°-50°	399.5	6.6
50°-60°	373.0	6.2
60°-70°	288.3	4.8
70°-80°	133.0	2.2
80°-90°	26.5	0.4
90°-100°	266.0	4.4
100°-110°	804.4	13.4
110°-120°	785.2	13.0
120°-130°	641.7	10.7
130°-140°	523.8	8.7
140°-150°	407.7	6.8
150°-160°	293.9	4.9
160°-170°	179.9	3.0
170°-180°	60.8	1.0
0°-30°	473.8	7.9
0°-40°	836.1	13.9
0°-60°	1608.6	26.7
0°-90°	2056.5	34.2
90°-120°	1855.6	30.8
90°-150°	3428.7	57.0
90°-180°	3963.0	65.8
0°-180°	6019.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	208	208	208	208	208	
5°	202	231	280	342	367	19
15°	166	327	684	766	797	46
25°	122	440	755	788	796	56
35°	87	424	715	740	783	55
45°	63	325	626	719	752	49
55°	47	194	531	610	626	42
65°	37	109	391	438	446	36
75°	26	67	208	112	114	27
85°	9	20	25	17	15	9
90°	0	2	12	7	6	2
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	208.0	208.0	208.0	208.0	208.0
2.5°	206.4	215.0	224.8	236.1	240.8
5°	202.0	231.3	280.0	341.6	367.0
7.5°	194.2	253.8	407.2	572.0	622.8
10°	187.0	270.1	536.0	678.6	706.0
12.5°	179.0	291.8	616.8	717.0	745.2
15°	166.0	327.3	684.0	765.7	797.0
17.5°	152.6	367.3	715.2	795.8	812.8
20°	143.0	395.3	732.0	801.3	812.0
22.5°	134.2	416.2	744.0	796.5	808.0
25°	122.0	439.8	755.0	788.2	796.0
27.5°	110.2	446.0	750.2	772.0	779.6
30°	103.0	444.2	743.0	759.3	770.0
32.5°	96.6	439.4	732.6	748.3	771.6
35°	87.0	424.3	715.0	740.0	783.0
37.5°	78.8	400.1	691.8	742.9	784.4
40°	74.0	382.0	675.0	742.8	778.0
42.5°	69.2	360.8	655.8	734.8	770.0
45°	63.0	325.0	626.0	718.8	752.0
47.5°	57.2	284.8	598.4	696.6	720.8
50°	54.0	257.4	580.0	676.4	696.0
52.5°	50.8	230.7	561.6	652.4	670.4
55°	47.0	193.7	531.0	610.4	626.0
57.5°	43.6	161.9	496.2	563.9	576.6
60°	42.0	144.7	469.0	530.3	543.0
62.5°	39.6	129.0	438.6	495.1	507.0
65°	37.0	109.4	391.0	438.2	446.0
67.5°	33.4	94.8	340.4	369.3	354.6
70°	31.0	87.7	306.0	315.0	273.0
72.5°	29.4	79.9	268.4	244.6	165.0
75°	26.0	67.1	208.0	112.0	114.0
77.5°	21.2	51.9	136.8	86.0	87.8
80°	18.0	42.4	72.0	70.0	71.0
82.5°	14.8	33.0	49.6	51.6	50.2
85°	9.0	19.8	25.0	17.0	15.0
87.5°	3.2	7.5	6.4	5.4	5.2
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	9.61	10.36	10.69	11.44	12.92	18.35	19.10	19.42	20.18	21.66
	3H	10.33	11.01	11.42	12.10	13.59	19.96	20.63	21.05	21.72	23.22
	4H	10.63	11.27	11.73	12.36	13.86	20.14	20.77	21.23	21.87	23.37
	6H	10.84	11.43	11.95	12.52	14.03	20.21	20.80	21.32	21.90	23.41
	8H	10.89	11.45	12.00	12.56	14.07	20.22	20.78	21.33	21.89	23.39
	12H	10.92	11.45	12.03	12.55	14.08	20.18	20.71	21.30	21.82	23.35
4H	2H	13.99	14.63	15.10	15.72	17.23	18.78	19.41	19.88	20.51	22.01
	3H	14.92	15.45	16.03	16.57	18.08	20.59	21.12	21.70	22.24	23.76
	4H	15.20	15.68	16.31	16.79	18.33	20.82	21.31	21.94	22.42	23.96
	6H	15.32	15.74	16.44	16.87	18.40	20.96	21.38	22.09	22.51	24.04
	8H	15.34	15.73	16.46	16.85	18.40	20.98	21.37	22.11	22.50	24.04
	12H	15.32	15.68	16.47	16.81	18.36	20.95	21.31	22.09	22.44	23.99
8H	4H	16.36	16.75	17.48	17.87	19.42	20.93	21.32	22.06	22.44	23.99
	6H	16.59	16.91	17.74	18.08	19.62	21.13	21.45	22.28	22.62	24.16
	8H	16.66	16.94	17.81	18.09	19.65	21.19	21.47	22.34	22.62	24.18
	12H	16.68	16.93	17.84	18.07	19.67	21.18	21.43	22.34	22.57	24.16
12H	4H	16.37	16.73	17.51	17.86	19.41	20.88	21.23	22.02	22.37	23.92
	6H	16.68	16.97	17.84	18.11	19.67	21.11	21.39	22.26	22.54	24.10
	8H	16.78	17.03	17.94	18.17	19.77	21.17	21.42	22.33	22.56	24.16